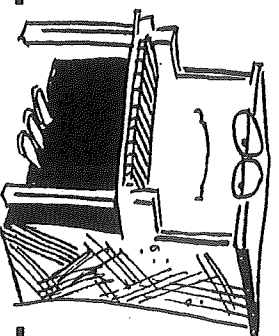


Why Didn't the Piano Work?

Factor the expression. Find a factor in each of the two answer columns. One factor will have a letter and the other a number. Write the letter in the matching numbered box at the bottom of the page.



Factoring Polynomials:
Factoring Out a Monomial:

Set 1

a. $x^2 - 6x$

b. $2x^2 + 8x$

c. $45x^2 - 20x$

d. $9x^3 + 30x$

e. $8x^5 - 15x^3$

Set 1 Answers

11. x^3 T. $(3x^2 + 10)$

6. $2x^2$ O. $(x - 6)$

24. $2x$ V. $(8x^2 + 15x)$

2. $3x$ S. $(9x - 4)$

16. x F. $(3x^2 - 4)$

14. x^2 N. $(8x^2 - 15)$

8. $5x$ A. $(x + 4)$

Set 3

a. $m^3n + 9m^2n$

b. $10m^3n^2 - 25m^2n^3$

c. $49m^5n^3 + 28mn^4$

d. $72m^7n + 24n$

e. $8m^3n^4 - 22m^5n^6$

Set 3 Answers

10. $5m^2n^2$ L. $(4 - 11m^2n^2)$

7. $24n$ P. $(7m^4 + 4n)$

18. $7mn^4$ S. $(2m - 5mn^2)$

1. m^2n W. $(3m^7 + 1)$

12. $2m^3n^4$ I. $(m + 9)$

22. $7mn^3$ L. $(4 - 11mn^3)$

5. $8mn$ O. $(2m - 5n)$

13.2

Set 2

a. $8a^3 + 4a^2 + 12a$

b. $7a^4 - 35a^3 - 14a^2$

c. $6a^8 + 10a^6 - 3a^4$

d. $36a^3 - 24a^4 + 60a^5$

e. $30a^6 - 75a^5 - 15a$

Set 2 Answers

7. $2a^2$ Y. $(a^2 - 5a - 2)$

6. a^4 P. $(2a^5 - 5a^4 - 3)$

15. $15a$ T. $(3 - 2a + 5a^2)$

13. $7a^2$ K. $(2a^2 + a + 3)$

9. $3a^2$ H. $(2a^5 - 5a^4 - 1)$

4. $4a$ O. $(6a^4 + 10a^2 - 3)$

19. $12a^3$ N. $(3 - 2a - 5a^3)$

Set 4

a. $40x^2 - 100xy - 80y^2$

b. $12x^5y^2 + 9x^4y^2 - 6x^3y^2$

c. $15x^3y - 35x^2y^2 + 40xy^3$

d. $144x^8y^2 + 27x^4y + 9x^2$

e. $2\pi x^2 - \pi y^2$

Set 4 Answers

17. $5xy$ R. $(4x^2 + 3x - 6y)$

21. $3x^2y$ N. $(16x^6y^2 + 3x^2y + 1)$

5. $9x^2$ O. $(2x^2 - 5xy - 4y^2)$

3. $5x^2$ Y. $(4x^2 + 3x - 2)$

25. $3x^3y^2$ L. $(2x^2 - y^2)$

23. π S. $(3x^2 - 7xy - 4y^2)$

20. 20 W. $(3x^2 - 7xy + 8y^2)$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
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